



*SGW*

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Date of Signature and Deposit: May 14, 2004

*Zhibin Ren*  
Zhibin Ren 47,897

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Edward R. Chapman	Date:	May 14, 2004
Serial No.	10/695,577	Group Art Unit:	1645
Filed:	10/28/2003	Examiner:	---
Title:	BOTULINUM NEUROTOXIN B RECEPTORS AND USE THEREOF	File:	960296.99004

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INFORMATION DISCLOSURE STATEMENT

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Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is a completed Information Disclosure Statement by Applicant listing documents that the applicant in the above-identified application wishes to bring to the attention of the Examiner for consideration in connection with the examination on the merits of this application.

No fee is believed due in connection with this submission. However, if a fee is due, please charge the fee to Deposit Account No. 17-0055.

Respectfully submitted,

*Zhibin Ren*

Zhibin Ren  
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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 0.00

## Complete if Known

Application Number	10/695,577
Filing Date	10/28/2003
First Named Inventor	Edwin R. Chapman
Examiner Name	--
Art Unit	--
Attorney Docket No.	960296.99004

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit  
Account  
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Account  
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17-0055

Quarles & Brady LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code	Small Entity Fee Code	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$ ) 0.00

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
	-20** =	X	= 0.00
Independent Claims	-3** =	X	= 0.00
Multiple Dependent			

Large Entity Fee Code	Small Entity Fee Code	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ ) 0.00

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051 130		2051 65		Surcharge - late filing fee or oath	
1052 50		2052 25		Surcharge - late provisional filing fee or cover sheet	
1053 130		1053 130		Non-English specification	
1812 2,520		1812 2,520		For filing a request for ex parte reexamination	
1804 920*		1804 920*		Requesting publication of SIR prior to Examiner action	
1805 1,840*		1805 1,840*		Requesting publication of SIR after Examiner action	
1251 110		2251 55		Extension for reply within first month	
1252 420		2252 210		Extension for reply within second month	
1253 950		2253 475		Extension for reply within third month	
1254 1,480		2254 740		Extension for reply within fourth month	
1255 2,010		2255 1,005		Extension for reply within fifth month	
1401 330		2401 165		Notice of Appeal	
1402 330		2402 165		Filing a brief in support of an appeal	
1403 290		2403 145		Request for oral hearing	
1451 1,510		1451 1,510		Petition to institute a public use proceeding	
1452 110		2452 55		Petition to revive - unavoidable	
1453 1,330		2453 665		Petition to revive - unintentional	
1501 1,330		2501 665		Utility issue fee (or reissue)	
1502 480		2502 240		Design issue fee	
1503 640		2503 320		Plant issue fee	
1460 130		1460 130		Petitions to the Commissioner	
1807 50		1807 50		Processing fee under 37 CFR 1.17(q)	
1806 180		1806 180		Submission of Information Disclosure Stmt	
8021 40		8021 40		Recording each patent assignment per property (times number of properties)	
1809 770		2809 385		Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770		2810 385		For each additional invention to be examined (37 CFR 1.129(b))	
1801 770		2801 385		Request for Continued Examination (RCE)	
1802 900		1802 900		Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 0.00

## SUBMITTED BY

Name (Print/Type)	Zhibin Ren	Registration No. (Attorney/Agent)	47,897	Telephone	414-277-5633
Signature		Date	May 14, 2004		

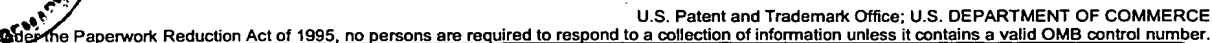
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**Complete if Known**

*(Use as many sheets as necessary)*

Sheet	1	of	4
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Application Number	10/695,577
Filing Date	10/28/2003
First Named Inventor	Edwin R. Chapman
Art Unit	1645
Examiner Name	--
Attorney Docket Number	960296.99004

[illegible][illegible]Date  
Considered

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	10/695,577		
		Filing Date	10/28/2003		
		First Named Inventor	Edwin R. Chapman		
		Art Unit	1645		
		Examiner Name	--		
Sheet	2	of	4	Attorney Docket Number	960296.99004

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	J. BAI, et al. Membrane-embedded synaptotagmin penetrates cis or trans target membranes and clusters via a novel mechanism. J Biol Chem 275: 25427-35 (2000).	
	2	E.R. CHAPMAN. Synaptotagmin: a Ca(2+) sensor that triggers exocytosis? Nat Rev Mol Cell Biol 3: 498-508 (2002).	
	3	E.R. CHAPMAN, et al. A novel function for the second C2 domain of synaptotagmin. Ca2+-triggered dimerization. J Biol Chem 271:5844-49 (1996).	
	4	D. DEMEMES, et al. Efferent function of vestibular afferent endings? Similar localization of N-type calcium channels, synaptic vesicle and synaptic membrane-associated proteins. Neuroscience 98: 377-84 (2000).	
	5	M. FUKUDA, et al. Mechanism of the SDS-resistant synaptotagmin clustering mediated by the cysteine cluster at the interface between the transmembrane and spacer domains. J Biol Chem 276: 40319-25 (2001).	
	6	M. FUKUDA, et al. Synaptotagmin IX regulates Ca2+-dependent secretion in PC12 cells. J Biol Chem 277: 4601-04 (2002).	
	7	M. FUKUDA, et al. Distinct self-oligomerization activities of synaptotagmin family. Unique calcium-dependent oligomerization properties of synaptotagmin VII. J Biol Chem 275: 28180-85 (2000).	
	8	A. GUT, et al. Expression and localisation of synaptotagmin isoforms in endocrine β-cells: their function in insulin exocytosis. Journal of Cell Science 114(9): 1709-16 (2001).	
	9	P. JUZANS, et al. Synaptotagmin II immunoreactivity in normal and botulinum type-A treated mouse motor nerve terminals. Pflugers Arch 431: R283-84 (1996).	
	10	S. KOZAKI, et al. Ganglioside GT1b as a complementary receptor component for Clostridium botulinum neurotoxins. Microb Pathog 25: 91-99 (1998).	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/695,577
		Filing Date	10/28/2003
		First Named Inventor	Edwin R. Chapman
		Art Unit	1645
		Examiner Name	--
Sheet 3 of 4	Attorney Docket Number		960296.99004

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	11	J.L. LEWIS, et al. The transmembrane domain of syntaxin 1A is critical for cytoplasmic domain protein-protein interactions. J Biol Chem 276: 15458-65 (2001).	
	12	L. LI, et al. Isolation of synaptotagmin as a receptor for types A and E botulinum neurotoxin and analysis of their comparative binding using a new microtiter plate assay. J Nat Toxins 7: 215-26 (1998).	
	13	M. MATTEOLI, et al. Exo-endocytotic recycling of synaptic vesicles in developing processes of cultured hippocampal neurons. J Cell Biol 117: 849-61 (1992).	
	14	T. NISHIKI, et al. Identification of protein receptor for Clostridium botulinum type B neurotoxin in rat brain synaptosomes. J Biol Chem 269: 10498-503 (1994).	
	15	T. NISHIKI, et al. The high-affinity binding of Clostridium botulinum type B neurotoxin to synaptotagmin II associated with gangliosides GT1b/GD1a. FEBS Lett 378: 253-57 (1996).	
	16	T. NISHIKI, et al. Binding of botulinum type B neurotoxin to Chinese hamster ovary cells transfected with rat synaptotagmin II cDNA. Neurosci Lett 208: 105-08 (1996).	
	17	S.L. OSBORNE, et al. Calcium-dependent oligomerization of synaptotagmins I and II. Synaptotagmins I and II are localized on the same synaptic vesicle and heterodimerize in the presence of calcium. J Biol Chem 274: 59-66 (1999).	
	18	M.S. PERIN, et al. Phospholipid binding by a synaptic vesicle protein homologous to the regulatory region of protein kinase C. Nature 345: 260-63 (1990).	
	19	G. SCHIAVO, et al. Tetanus and botulinum-B neurotoxins block neurotransmitter release by proteolytic cleavage of synaptobrevin. Nature 359: 832-35 (1992).	
	20	G. SCHIAVO, et al. Synaptotagmins: more isoforms than functions? Biochem Biophys Res Commun 248: 1-8 (1998).	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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		Filing Date	10/28/2003
		First Named Inventor	Edwin R. Chapman
		Art Unit	1645
		Examiner Name	--
Sheet 4	of 4	Attorney Docket Number	960296.99004

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	21	C.T. WANG, et al. Synaptotagmin modulation of fusion pore kinetics in regulated exocytosis of dense-core vesicles. Science 294: 1111-15 (2001).	
	22	GenBank Accession No. P24506.	
	23	GenBank Accession No. P24505.	
	24	GenBank Accession No. P47191.	
	25	GenBank Accession No. NP_005630.	
	26	GenBank Accession No.X52772.	
	27	GenBank Accession No. D37793.	
	28	GenBank Accession No. D37792.	
	29	GenBank Accession No. M64488.	
	30	GenBank Accession No. Q8N9I0.	

Examiner Signature		Date Considered	
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